(No Model.)

W. WERTS.

PRESS FOR MOLDING GLASS.

No. 270,526. Patented Jan. 9, 1883.

Fig. 1.

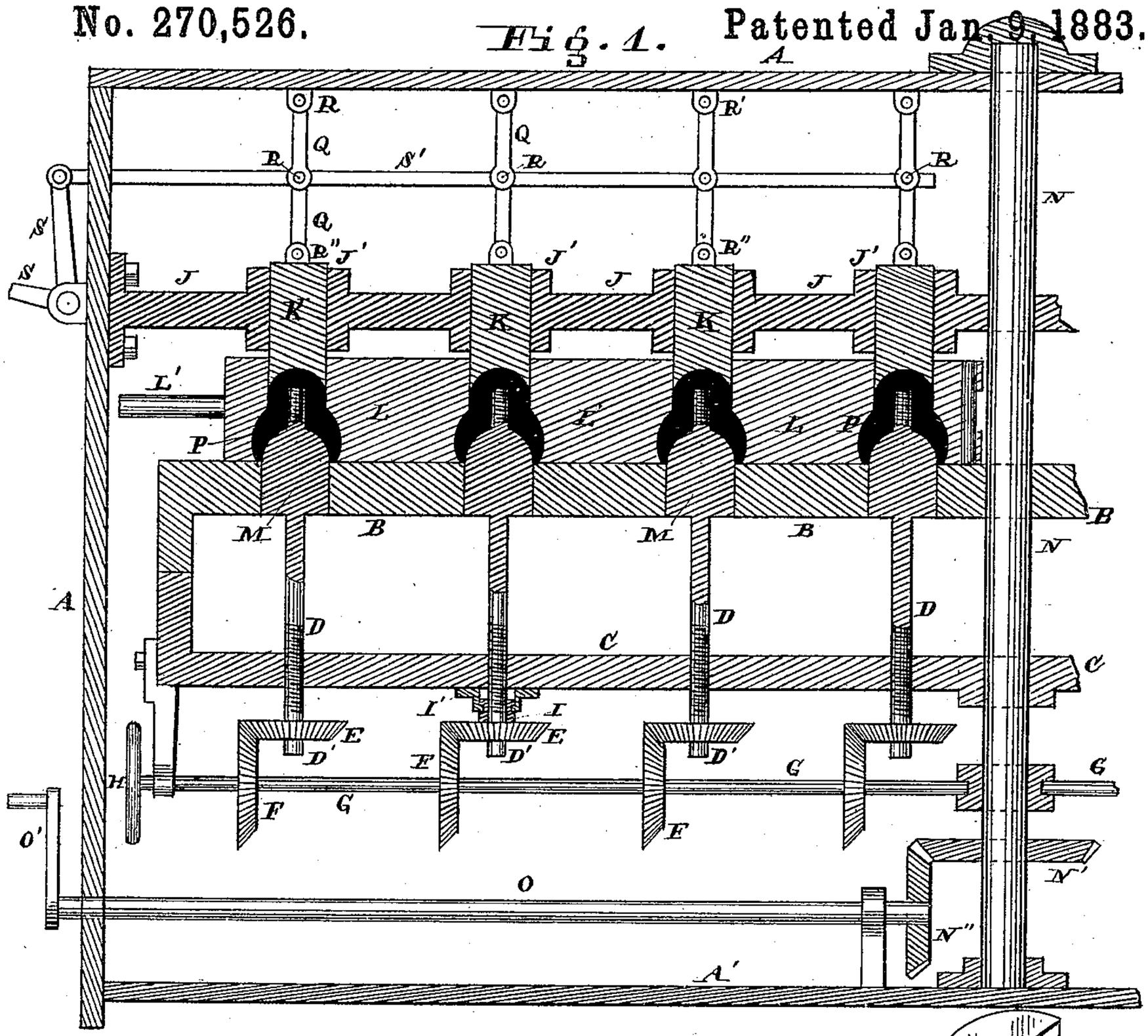

Fig. 2.

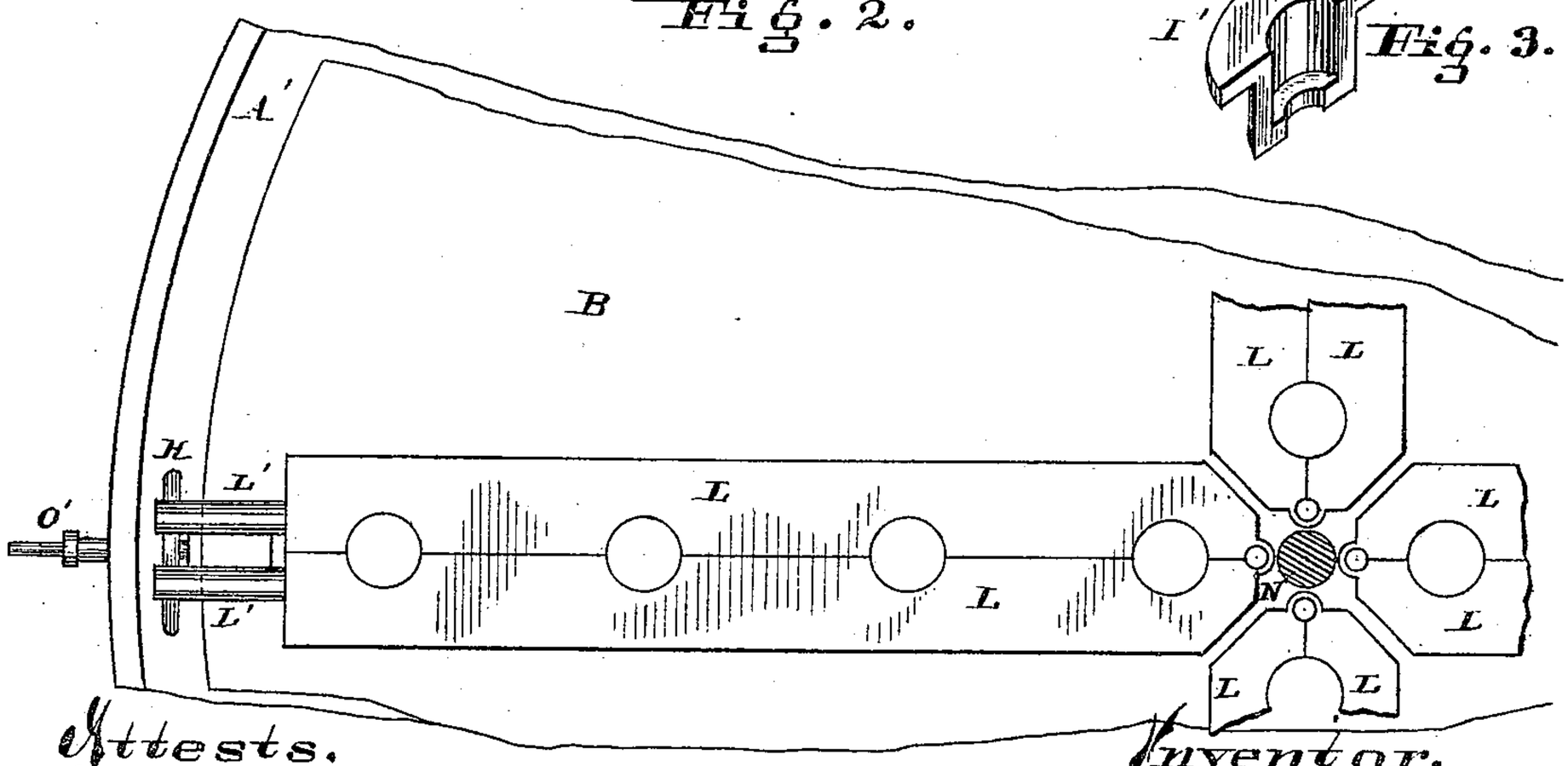

Fig. 3.

Attests.
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UNITED STATES PATENT OFFICE.

WILLIAM WERTS, OF CAMDEN, NEW JERSEY.

PRESS FOR MOLDING GLASS.

SPECIFICATION forming part of Letters Patent No. 270,526, dated January 9, 1883.

Application filed July 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WERTS, of the city of Camden, State of New Jersey, have made certain new and useful Improvements in Presses for Molding Glass, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part hereof.

The nature of my invention will fully appear from the following specification and claims.

In the drawings, Figure 1 is a vertical sectional view of my device, showing the central pivot and some of the gear-wheels intact. Fig. 2 is a detached broken view, showing the blocks containing the mold, the turn-table or bed-plate, and the foundation or part of the main frame of the machine; Fig. 3, a detached view of part of a hanger. These hangers are cast in two pieces.

A A′ is the main frame; B C, the turn-table.

D D are screw-threaded shafts or gudgeons, which pass through the bottom C of the turn-table, engaging therein with screw-threaded holes, through which they pass. They terminate below in plain polygonal ends D′, or these ends may be round and furnished with feathers. These ends pass through correspondingly-shaped holes in the horizontal beveled pinions E E. These beveled pinions engage with the vertical pinions F, which are mounted upon the horizontal shaft G, and are revolved by the hand-wheel H. The beveled pinions E are suspended from the lower surface of the table B C by means of the collar I and hanger I′.

J is a stationary plate, having cylindrical guides J′ J′ for the plungers K K.

L is a block containing the molds P.

Q Q are jointed arms, jointed at the points R R, and hinged to the top of the frame at the points R′ R′, and hinged below to the plungers K K at the points R″ R″.

S S is an elbowed lever, which is pivoted at the point of its angle to the outside of the frame, and one of its arms is hinged to the long rod S′, which in turn is pivoted to the rods Q Q at the points R R.

N is an upright pivoted standard, to which are secured the turn-tables B C B C.

N′ is a horizontal beveled cog upon the lower part of standard N, gearing with the vertical beveled cog N″, which is upon the horizontal shaft O, and turned by the crank O′.

L′ L′ are two bars projecting from each of the ends of the molds L in order to separate the two halves L L of which each mold is composed. The molds are thus divided into halves in order that they may be opened to remove the object formed in the mold.

M M are formers on the upper ends of shaft D, and terminating above, in this instance, in a screw-threaded end. By removing the rod S′ the rods Q will be bent at an angle, which will result in raising the plungers K K out of the molds P P.

I will describe the operation of my press as I would use it to mold telegraphic insulators, the principle of operation being about the same whatever article is to be molded in it.

The plungers K are raised out of the mold, and the turn-table B C is then turned round sufficiently on the pivot N to move it from under the guide-plate J J. With a small ladle, holding just sufficient to make one of the articles intended to be molded, one measure of glass is poured into each of the molds P P. The turn-table is then returned to its original position—namely, that shown in the drawings—and the plungers K are then forced down upon the glass in the molds, as shown in Fig. 1, the black mass representing the glass. After the glass has been allowed to cool, the former is then lowered by turning the hand-wheel H, which revolves the beveled cogs F and E. This motion turns the gudgeon D and the former M, which unscrews the threaded end of the former M from the interior of the newly-molded insulator. The plungers K are now raised, and the mold-block L L is opened by means of the bars or handles L′ L′. These bars are hooked together in practice when the mold is being used.

My improved press may be used to manufacture various other articles of glassware and porcelain by changing the form or shape of the mold. In making some articles—such as tumblers, jar-lids, and the like—it will not be necessary to turn or revolve the former M. It will only be necessary to raise it into position before the glass is poured into the mold and drop it down when the glass is cool.

I have only shown in my drawings one wing of my press; but there are four wings, as indicated by the broken-off parts L L in Fig. 2. I have confined my description to one part, as the others are simply duplicates to that set forth.

It will be observed that by moving the draw-rod S′ all the plungers are raised or lowered simultaneously, and by turning the shaft G all the formers are raised or lowered simultaneously.

What I claim as new is—

1. In a compound press for molding articles of glass and porcelain, in combination with the series of molds P P, a series of formers, M M, and a series of plungers, K K, and suitable mechanism, Q R S′, acting upon all the plungers of the series simultaneously to raise and lower them, substantially as described.

2. In a press for molding articles of glass and porcelain, the combination of the mold P, a movable former, M, plunger K, and a jointed double lever, Q, provided with a draw-bar, S′, to raise and lower the plunger, substantially as described.

3. In a press for molding articles of glass and porcelain, in combination with the molds P P, the plungers K K, and the formers M M, provided with screw-threaded ends, respectively, screw-threaded rods D D, gears E E and F F, and shaft G, operating substantially as described, whereby the whole series of formers are turned and lowered simultaneously.

WILLIAM WERTS.

Witnesses:
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H. V. BUCKLEY.